

ABSTRACT OF THE DISCLOSURE

A portable USB storage device is provided. The USB storage device has a USB connector having power and data pins. A USB controller is connected to the data pins and a DRAM unit for controlling data access of the DRAM unit. A refreshing circuit is coupled to the power pins. The refreshing circuit is operative to refresh the DRAM unit when the USB connector is inserted into a socket of a host. A rechargeable battery is charged via the power pins when the USB connector is inserted into the socket of the host. The rechargeable battery is operative to supply power to the DRAM unit and the USB controller. In response to disconnecting the USB connector from the host, the DRAM unit is switched to a self-refreshing mode by the USB controller and the USB controller enters into a power saving mode.